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## Stakeholder perceptions of lowering the blood alcohol concentration standard in the United States

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### Abstract

**Purpose:** This study sought to better understand the past change in the legal blood alcohol concentration (BAC) standard from 0.10% to 0.08% in the United States, as well as explore stakeholder perceptions about potential health and other impacts of further lowering the standard below 0.08%.

**Methods:** In-depth interviews were conducted with representatives of 20 organizations considered to have an interest and investment in the potential impacts of strategies to decrease alcohol-impaired related crashes and injuries. Interviews were conducted by a trained moderator, using a structured guide.

**Results:** Themes from the interviews are presented for several discussion topics explored for both the earlier change in the legal BAC limit from 0.10% to 0.08% and a potential lowering of the limit below 0.08%. Topics included arguments for and against change; organizational position on the change; stakeholders on both sides of the issue; strategies to support or oppose the change; health and economic impacts; and enforcement and adjudication challenges.

**Conclusions:** Collectively, results suggest that moving the BAC standard below the current level will require considerable effort and time. There was strong, but not complete, agreement that it will be difficult, and maybe infeasible in the short-term, for states to implement a BAC standard lower than 0.08%.

### Keywords

Alcohol-impaired driving; Drunk driving; Health and economic impacts

### Introduction

Alcohol-impaired driving (AID) continues to represent an important public health problem in the United States despite progress over the past several years. For example, although the number of people killed in AID crashes with a blood alcohol concentration (BAC) of 0.08 g/dL (referred to as 0.08% in this article) or higher declined from 11,711 in 2008 to 9,967 in 2014, AID fatalities still account for about one-third of all vehicle traffic fatalities[1,2].

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Central to states' efforts to combat AID is the setting of a minimum BAC level above which a driver is considered impaired and operating a motor vehicle illegally [3]. In the 1970s and early 1980s, the legal BAC level mandated by most states was 0.10% [4]. As part of continuing efforts to further reduce AID-related crashes, fatalities, and injuries, states began lowering the legal BAC standard to 0.08% in the early 1990s; by 2005, all 50 states had a 0.08% standard in place [5]. Fell and Voas [6] reviewed 14 evaluations of the change in the standard and found reductions in alcohol-related crashes, fatalities, and injuries ranging from 5% to 16%. Shults et al.[7] also conducted a systematic review and found the median postlaw reduction in alcohol-related motor vehicle fatalities after the introduction of 0.08% BAC level to be 7% with an interquartile range of 15% to 4%.

Debate continues on whether states should further decrease the legal BAC standard below 0.08%, specifically to 0.05%. Based on a comprehensive review of the literature on BAC standards, Fell and Voas [8] concluded that there was support for further lowering the legal standard to 0.05%. They found evidence that virtually all drivers are impaired on at least some driving performance measure at 0.05% and that crash risk significantly increased at 0.05%. However, despite such evidence, as well as a recommendation from the National Transportation Safety Board that states establish a per se BAC standard of 0.05% or lower for all drivers [9], only Utah, has passed such legislation [10].

It is important to understand the barriers to and facilitators of state AID policy changes. To this end, potentially useful information can be obtained by talking with the organizations considered to have an interest and investment in the potential impacts of strategies to decrease AID-related crashes and injuries. Stakeholder organizations, especially those outside of government, can play an important role in influencing government policy and public opinion. Anderson and Baumberg [11] referred to these nongovernmental organizations as essential partners for alcohol policy, characterizing them as "a vital component of a modern civil society, raising people's awareness of issues and their concerns, advocating change, creating a dialog on policy and exposing harmful actions of the alcohol industry" (p. 394). They also noted that the alcohol industry's commercial interests may conflict with public health measures aimed at AID.

One of the central stakeholders with regard to past changes in AID policy in the United States was Mothers Against Drunk Driving (MADD). Fell and Voas [12] reviewed 25 years of MADD's history and found considerable evidence that the organization had made a difference in the United States regarding AID, particularly by contributing to public perceptions that drunk driving is socially unacceptable and playing a central role at both the national and state levels in obtaining passage of 0.08% and other laws. Stakeholder organizations can also play a role in promoting and helping sustain policy recommendations once they have been made. Mercer et al. [13] reported on a case study of states' adoption of 0.08% BAC laws in the United States and concluded that the successful translation of evidence into policy was related to the capacity to involve multiple stakeholders in encouraging uptake and adherence. Specifically they noted that "stakeholders at multiple levels were able to act meaningfully to bring about support for public action. Federal policy makers established meaningful incentives (budgetary sanctions) to encourage policy action at the state level. Various public health and traffic safety groups and advocates such as

MADD worked to support laws at the state level. Multiple constituents at local levels – police, public health and traffic safety professionals, and advocates (including local MADD affiliates) – later worked to encourage adherence” (pages 418–419).

The objective of the study reported here was to better understand the earlier change in the legal BAC standard from 0.10% to 0.08% and the context within which it occurred, as well as explore stakeholder perceptions about the potential health and other impacts of further lowering the standard below 0.08%. The study was part of a larger project intended to examine the feasibility, health impacts, and public perceptions related to a possible lowering of the legal BAC standard in the United States (Eby et al., in press [14]). The structured interviews provide interesting and important insights into the views of key stakeholder groups and how those views may have changed since the lowering of the BAC standard from 0.10% to 0.08%, including the challenges that will likely have to be addressed in furthering lowering the BAC below 0.08%.

## Methods

In-depth interviews were conducted between July and September of 2013 with representatives of 20 national organizations with a stake in the potential impacts of strategies to decrease AID-related crashes and injuries. These organizations came from an initial list of 33 stakeholder groups, based on findings from a review of the literature, discussions among the team, and an intended project focus on the national scene. Thirteen were not included in the interviews for a variety of reasons including: we could not find or make contact with an appropriate person; the interview could not be conducted within the time frame of the study; or the person did not want to or could not participate. These 13 groups were Advocates for Highway and Auto Safety; American Association of State Highway and Transportation Officials; American Association of State Troopers; Center for Substance Abuse Prevention; Council for State Governments; National Association of County and City Health Officials; National Association of Insurance Commissioners; National Conference of State Legislators; National Restaurant Association; National Sheriff's Association; American Insurance Association; US Department of Justice; and Century Council.

A member of the research team contacted a representative from each selected organization whose role was believed to encompass alcohol-related programs, policy, enforcement, or adjudication (as identified through Internet searches and the project team's knowledge of these organizations). Each representative was invited to participate in the project by completing an interview, or to recommend someone else within the organization considered to be more appropriate. Of those contacted, 20 agreed to participate and were able to complete an interview (19 via telephone and one providing written responses to the interview guide questions; Table 1).

The interview guide focused on the past change in the BAC standard from 0.10% to 0.08%, as well as perceptions about further lowering the standard from the viewpoint of the organization, including the identification of perceived barriers to its passage and implementation, and strategies for overcoming these barriers. Specific topics asked about in relation to both the past change and potential changes in the future included: arguments for

and against change; organizational position on change; stakeholders on both sides of the issue; strategies to support or oppose change; health and economic impacts; enforcement challenges; and adjudication challenges. These topics were developed based on review of the literature and expert opinion of the research team.

The interview guide was pilot tested with four state-level organizations and revised based on this feedback. All interviews were conducted by an experienced moderator, using a structured interview guide. Interviews lasted about 1 hour each and were digitally recorded after permission was obtained from the interviewees. Interviewees were first asked a set of questions about the past change in the legal BAC standard from 0.10% to 0.08%. They were then asked a similar set of questions about potentially lowering the legal BAC standard below 0.08%. Based on a review of the interview notes and audio tapes, major themes were identified by question topic and whether the context was the earlier change in BAC from 0.10% to 0.08% or a hypothetical change to below 0.08%. Because each stakeholder was assured that results would only be reported in the aggregate and that their individual responses would be anonymous, no attributions are made to specific organizations in the findings section.

## Findings

In this section, themes that emerged from the structured interview discussions are presented. The themes are organized around the specific topics contained in the moderator's guide that each stakeholder was asked about.

### Perceptions among stakeholders

#### Arguments for and against change

**Lowering BAC from 0.10% to 0.08%.** Interviewees were asked to think back to the time when states were considering lowering the BAC standard from 0.10% to 0.08% and discuss the arguments both for and against the change. The most frequently mentioned argument for the change from 0.10% to 0.08% (cited by almost all interviewees) had to do with the scientific evidence of impairment and increased crash risk among drivers at levels below 0.10%. Many interviewees specifically referred to 0.08% as the threshold for this heightened risk. Others cited studies showing impairment and increased crash risk at levels as low as 0.05%. Collectively, the basis of this argument was that lowering the BAC standard would result in increased safety by reducing crashes and associated injuries and deaths. When asked how influential this argument had been, most interviewees made a clear distinction between decisions made at the federal level and those made by individual states. They pointed out that at the state level, the scientific evidence, while compelling, was not very persuasive. Rather, it was the threat of losing highway funds, as stipulated in the transportation bill passed by Congress that influenced states to adopt the 0.08% BAC standard. As one interviewee stated, if the argument at the state level had been made just on its merits (reduction of drunk driving, saving lives), he was not sure states would be at 0.08%. At the same time, the scientific evidence was considered to be instrumental in moving things forward at the federal level. Without it, many thought that Congress would not have acted to restrict states' road construction funds if they failed to pass 0.08%.

Other cited arguments for the change were that: many other countries have already lowered their standard to 0.08% or even 0.05% and lower, with good results; too many people were dying in alcohol-related crashes and lowering the BAC standard to 0.08% was reasonable, publicly supported, and compatible with a larger trend toward lower impairment levels; and it would be easier to prosecute higher BAC cases with a lower standard. A final argument for the change related to the personal loss associated with AID crashes; several interviewees noted how emotionally compelling personal stories of losing a loved one could be. In particular, the emotional appeals of MADD were seen as an important driving force in getting Congress to act. Many interviewees talked about how effective the stories of human loss were in putting a very personal face on what would have otherwise been an abstract public policy debate. That being said, it was noted that it still took 20 years for all states to adopt the 0.08% BAC standard.

One of the frequently mentioned arguments against the change was that it would target or “criminalize” social drinkers without affecting high BAC drinkers or repeat offenders considered to be the real problem. Another argument cited was that lowering the BAC to 0.08% would be the first step in returning to prohibition. Related to this was an argument based on individual freedom; that is, people should have the right to make their own decisions without government interference. Other arguments against the change mentioned by interviewees included a negative economic impact on the alcohol industry, especially loss of jobs because of a decline in on-premises drinking, as well as increased burden on law enforcement and overloading of the court and jail systems because of the increase in arrests that would result from lowering the BAC standard. A few interviewees also pointed to arguments centered on disputing the scientific findings or comparing the estimated risks associated with 0.10% to other distracted driving behaviors (such as eating or grooming) that have not been prohibited by society.

**Lowering BAC below 0.08%:** When asked if arguments for and against further lowering the BAC standard would be different from or the same as the earlier change, most reported that the arguments themselves would be similar. However, taken together, responses pointed to some important differences in terms of the overall tenor of the debate. First, there was widespread agreement that it would be harder to convince people about the scientific evidence supporting a lowered BAC standard, particularly 0.05%. Several mentioned that while the evidence of impairment is there, it is not as clear. Others were more forceful in citing evidence for impairment at 0.04%–0.05% but cautioned that it would take considerable efforts to convince the public of this, given people’s misconceptions about impairment in general, the greater likelihood of individual variation at that level, and the lack of restrictions on other driving behaviors that result in impairment (e.g., various driving distractions). Similarly, some noted that the case for reduced deaths would be harder to make. An example of this was the comment that although research shows that crashes would go down, it is less clear how much of a reduction could be expected given that most alcohol-related fatalities are associated with higher BACs.

Many interviewees reported changes in the environment likely to contribute to the challenge of further lowering the BAC standard including: the disbanding or weakening of many organizations that supported 0.08%; the lack of a strong voice from the federal government

on this issue; competing priorities for resources within stakeholder organizations; a different mix of legislators who are more socially conservative; a growing focus on consumer choice; a trend toward normalizing alcohol (viewing it like any other product); and an increased focus on job growth and retention (making the alcohol industry's argument about job loss more compelling). The inability of people to understand BAC (or accurately equate impairment with BAC level) was also mentioned as a factor that may undermine arguments in support of lowering the BAC standard. In addition, it was noted that as you get lower on the BAC ladder, the incremental benefits get smaller and it is harder to make the case for change. Finally, several interviewees raised concerns about whether a push to lower the BAC standard might undermine or complicate other efforts underway to address AID. Examples given included initiatives in many states to mandate ignition interlocks for first offenders, MADD's "Campaign to Eliminate Drunk Driving" (i.e., supporting law enforcement through high visibility enforcement and sobriety check points, requiring all drunk driving offenders to get ignition locks, and development of advanced technology systems), and other technology-based initiatives.

In terms of arguments against further lowering the BAC, there was general agreement that these would be stronger in many cases. For example, several interviewees suggested that the earlier argument that 0.08% was just the first step in further lowering the standard would likely become an "I told you so" argument, with questions raised about just how low the standard would become. Similarly, it was thought that the argument about criminalizing social drinkers would resonate even more at 0.05% than 0.08%. In addition, the potential adverse economic consequences for the alcohol industry, especially loss of jobs, was seen by a few interviewees as likely to carry more weight given the current economic environment and importance of job protection and creation to the economic recovery.

### **Organizational position on change**

**Lowering BAC from 0.10% to 0.08%.** Interviewees were asked if their organization had taken either an official or unofficial position on the change from 0.10% to 0.08%. While several interviewees reported that their organizations had taken a position in support of the earlier change, most organizations had remained neutral or did not take an official position. Reasons for not taking a position included general restrictions on advocacy, lack of consensus within the organization, and a general rule against taking positions on issues considered to be individual state issues or issues concerned with states' rights. Among those organizations that had a position supporting the change, some came out with a policy statement but did little else to publicize or promote their position. Others reported lobbying members of Congress and other key decision makers, and/or working to educate their members and the general public on the issue.

**Lowering BAC below 0.08%.** Interviewees were asked if they thought their organization would take an official or unofficial position on lowering the BAC standard below 0.08%, and if so, what it would be and what activities would be undertaken to publicize/promote it. A few of the organizations reported already having policy statements supporting 0.05%, but they had been in place for some time and there were no current plans to actively publicize or promote them. A few interviewees mentioned that they had not had sufficient time to discuss



the issue and others noted that they might take a position in the future but would not take a leadership role. MADD, who officially supported 0.08% in the earlier debate, has not taken a position on further lowering the BAC standard; its current focus is on its “Campaign to Eliminate Drunk Driving.”

### **Stakeholders on both sides of the issue**

**Lowering BAC from 0.10% to 0.08%.** Interviewees were asked who the key stakeholders were, in general, on both sides of the issue. There was widespread agreement that MADD was in the forefront of the groups supporting the past change and one of the most visible stakeholders. Other key stakeholders in support of the change came from the traffic safety and alcohol communities including several government organizations, particularly at the federal level, as well as advocacy groups, and automobile insurance-related groups. In addition, several organizations with a more general focus on health and/or safety were seen as supporters. The general public was also seen by some interviewees as a key stakeholder in favor of lowering the BAC standard.

Key stakeholders opposed to the change were generally considered to be those groups that comprise the alcohol and hospitality industry. Stakeholders were also considered to include bar and restaurant owners, beer and wine retailers and wholesalers, and various trade associations, tavern associations, and defense attorney/public defenders associations. In addition, several interviewees identified conservative/libertarian groups as being opposed to the government regulating personal behavior and a few named the American Civil Liberties Union as a key stakeholder against the change.

**Lowering BAC below 0.08%.** Interviewees were asked if the stakeholders would be different or the same compared with the earlier change. In general, the stakeholders were considered to be the same but their level of support and willingness to push for change was seen as weakened from the earlier debate. In particular, MADD, perceived as the leader in the 0.08% debate, was viewed as remaining neutral in the debate to further lower the BAC standard, choosing instead to focus on other AID initiatives. Several interviewees noted that MADD and other stakeholder groups in the forefront of passing 0.08% are much less effective today, with fewer resources, and in the case of MADD, a reduced state presence and network. One interviewee commented that the network of support would have to be rebuilt. On the other side, one interviewee observed that the public would likely become a stakeholder against lowering the BAC standard below 0.08%.

### **Strategies to support or oppose change**

**Lowering BAC from 0.10% to 0.08%.** Interviewees were asked what strategies key stakeholders engaged in to either support or oppose lowering the BAC standard from 0.10% to 0.08%. An important strategy for supporting the past change was reported to be lobbying Congress at the federal level although MADD was one of the few groups able to lobby on Capitol Hill. Most interviewees pointed to MADD as being particularly effective in supporting the move to 0.08%. MADD’s strategies included: using workshops to get its message out and train people on how to effectively influence decision makers; developing policy or position statements in support of 0.08% as a resource for people speaking on

Capitol Hill; organizing a national conference in Washington, DC so that people could meet and influence their legislators; and scheduling a youth summit in DC on the day that Congress was set to vote on the transportation bill to keep attention on underage drinking and broader alcohol issues. MADD was characterized as being well funded, having a highly organized network in place with a strong presence and staff in every state, and being savvy about how to influence decision makers. One interviewee noted that MADD's approach to this issue reflected its broader strategy of focusing on one issue at a time, putting its efforts into shaping legislation for that issue, and not getting distracted by other issues. Other strategies used by various stakeholders to support 0.08% included issuing press releases, writing newspaper editorials, and developing other media messages, as well as testifying on Capitol Hill. Stakeholders opposed to the change were also reported to use lobbying and media strategies.

**Lowering BAC below 0.08%.** It was generally thought that the strategies would be similar to those used earlier, with the exception that social media would likely play a central role (e.g., using Twitter and Facebook to get the message out). A major challenge to further lowering the BAC standard was considered to be finding a new champion to replace MADD in moving things forward in Congress.

### **Health and economic impacts**

**Lowering BAC from 0.10% to 0.08%.** Interviewees were asked separately about the health and economic impacts of the change from 0.10% to 0.08%. Because interviewees tended to discuss them together, as a more general set of impacts, they are reported together here. Reported health and economic impacts for the earlier change included: reductions in drinking; reductions in drinking and driving; reductions in alcohol-related crashes and resulting fatalities and injuries; greater thought given by individuals to their own alcohol consumption; improvements in server training; and increased recognition of the need for treatment for alcohol problems, as well as increased provision of treatment itself. Along with the crash-related reductions came substantial economic savings (e.g., decreases in lost work, and emergency, hospital, rehabilitation, and other health care costs). There was less agreement about the economic impact of the earlier change on the alcohol industry. A few cited reductions in alcohol consumption leading to lost revenue for the industry. Others reported they were not sure if 0.08% had a negative impact on the industry; of these interviewees, some doubted that there had been but others thought it reasonable that this would be the case (with one speculating that there had been a shift from on-premises to off-premises consumption).

**Lowering BAC below 0.08%.** In thinking about the health and economic impacts of further lowering the BAC standard, some of the same positive impacts were mentioned. However, these impacts were mentioned less frequently and when mentioned, were generally not considered to be of the same magnitude. For example, one interviewee noted that impaired driving reached a plateau in the mid-1990s and it was unclear how many more drunk drivers the police were going to arrest. The "tough economy of today" was also seen as factor that would temper the large drop seen with 0.08%. In terms of negative impacts,



some thought that it would probably have an impact on the alcohol industry but there were mixed views on what the magnitude of that impact would be.

### **Enforcement challenges**

**Current 0.08% BAC standard.:** Interviewees were asked to think about the current 0.08% BAC standard in place in all US states and discuss the major challenges associated with enforcing it and what strategies police use to overcome these challenges. Constitutional restrictions were mentioned by several interviewees as posing unique challenges for enforcement efforts in the United States. These restrictions, not present in most countries outside the United States, include the need for probable cause and the inability of many states to operate sobriety checkpoints, one of the proven strategies for deterrence of AID. Another challenge to enforcing 0.08% was reported to be the growing trend of drugged driving which affects impairment in combination with alcohol but is not reflected in a person's BAC level. It was also noted that it can be a challenge to get law enforcement agencies and officers to focus on detecting drivers at 0.08% rather than higher BAC drivers, especially given their lack of resources. Another reason offered was that police may lack training or an understanding of the impact of driving at 0.08%. Nevertheless, some interviewees noted that when police officers follow established procedures, there are no real issues with enforcing 0.08%. Other challenges mentioned, but infrequently, included: problems with calibration of breathalyzers; use of outdated technology; difficulties in obtaining timely blood samples when needed; and weaknesses in the 0.08% laws themselves that make them difficult to enforce (e.g., having to read suspects their Miranda rights twice).

It was noted that recent advances have made it possible to conduct sobriety check points with fewer officers. One strategy identified for states prohibited from conducting sobriety check points was the use of saturation patrols or driving under the influence (DUI) units, combined with a multi-jurisdictional approach. In addition, it was suggested that states without sobriety checkpoints use passive alcohol sensors to detect the presence of breath-alcohol during routine traffic stops, giving probable cause for administering field sobriety tests. Few suggestions were offered for strengthening these strategies; those mentioned included: increasing the use of passive alcohol sensors; using a variety of incentives to encourage law enforcement to participate in mobilizations; providing more training and resources; and more generally, closing loopholes that exist in many of the state laws.

**Lowered BAC standard (below 0.08%).:** Interviewees were asked if lowering the BAC standard below 0.08% would introduce new enforcement challenges and what strategies could be used to overcome these challenges. Most comments by interviewees were in the context of moving to 0.05% per se, given that many jurisdictions already arrest people for impaired driving at levels less than 0.08% on a presumptive basis. Many interviewees noted that the detection of impairment would become increasingly challenging if the standard was lowered to 0.05%. In addition, concern was raised by some about the need to revalidate standardized field sobriety tests (SFSTs) for the lower BAC level. For example, one interviewee noted that it took a long time to establish SFST reliability and validity at 0.08% and that this process would have to be repeated at 0.05%. However, others did not expect calibration/validation to be a substantial problem. There were few mentions of police

becoming more overloaded, although it was noted that growing attention to more general security issues in society has left fewer resources for law enforcement. Finally, a few pointed out that moving to 0.05% would involve many of the challenges that currently exist but that they would be magnified. One example of this was the observation that police officers tend to focus on higher BAC drivers because they are more problematic and easier to spot and that would still be a challenge with enforcing 0.05%. Suggested strategies for overcoming these challenges included: testing instruments to assess validity, revalidating if necessary, and if not, getting that information out to police officers; using existing strategies (e.g., sobriety check points, DUI units) more extensively; increasing the use of passive alcohol sensors; making greater use of videotaping during SFST administration; and providing increased education and training for law enforcement. It was noted that these efforts would require more resources but it was not clear where they would come from.

### Adjudication challenges

**Current 0.08% BAC standard.:** Interviewees were asked about the major challenges associated with adjudicating cases related to the current 0.08% BAC standard and what strategies are used to overcome these challenges. Several challenges were identified that related to prosecuting cases. These included: the use of inexperienced prosecutors to try cases that are tied to complex statutes; overcoming frequent defense challenges to probable cause (e.g., SFST results); and the need to get cases tried in a timely manner (to meet “speedy trial” requirements) while dealing with large caseloads. In addition, it was noted that many judges do not accept per se impairment and want to see behavioral evidence. Finally, loop holes in the laws themselves were considered by one interviewee to be a problem, regardless of the BAC standard (e.g., look back periods that allow an offense to be taken off one’s record after a certain number of years so that he or she can retain first offender status if rearrested). One suggested strategy for overcoming some of these challenges was improved training of prosecutors in all phases of trial work (e.g., jury selection, education of jury, opening statements, experts and other evidence, opening and closing arguments). Other suggestions included: greater use of DUI courts; working to make DUI laws simpler; and greater reliance by police officers on blood analysis for evidence.

**Lowered BAC standard (below 0.08%).:** Interviewees were asked if lowering the BAC standard below 0.08% would introduce new challenges, as well as what strategies could be used to overcome them. A key challenge identified by interviewees was that prosecutors and judges would need to be committed to 0.05%. As one interviewee put it, if 0.05% becomes the legal standard and law, there will be a “need to convince prosecutors and judges that there is impairment at that level.” Juries may also be reluctant to convict at 0.05% and will need to be convinced that there is impairment at 0.05%. Establishing probable cause, making sure that cases are well documented and based on solid investigations, and greater administrative demands were also identified as challenges. Reported strategies to overcome these challenges included: education and training for prosecutors and judges; increased use of passive alcohol sensors at routine traffic stops; expanded use of NHTSA’s recommended standard procedures for enforcement to strengthen prosecution (e.g., requirements that officers observe behavior and establish probable cause, use tests based on established testing standards, form an opinion, make the arrest, process the individual, build a case, get

necessary testing); and greater reliance on other strategies to manage alcohol-impaired drivers (e.g., expanding the 24/7 program, use of house arrests instead of incarceration, possible use of civil/administrative sanctions).

## Discussion

Collectively, results of the structured interviews suggest that moving the BAC standard below the current level of 0.08% will require considerable effort and time. As discussed by the interviewees, changes in the political, economic, and social environment over the past 10–20 years make lowering the BAC standard a much more difficult process than the previous move from 0.10% to 0.08%. In addition, each incremental reduction in the BAC will bring greater challenges in making a case for the change. Some stakeholder groups are choosing to concentrate their efforts on other initiatives that show promise for reducing AID. Others remain committed to pushing for a lower BAC standard but recognize that it will be an uphill battle requiring strong leadership and a formidable campaign to educate policy makers, other stakeholders, and members of the general public to gain their support.

There was strong, but not complete, agreement that it will be difficult, and maybe infeasible in the short-term, for states to implement a BAC standard lower than 0.08% as a countermeasure to reduce AID and the associated crashes, injuries, and deaths. Many stakeholders reported that they thought there were other AID countermeasures that could yield greater benefits with less difficulty to implement them. Examples of such countermeasure efforts included initiatives in many states to mandate ignition interlocks and the development of the Driver Alcohol Detection System for Safety [15]. Combined with results of a nationally representative survey of public attitudes about these issues [14], these results suggest only modest support for lowering the legal BAC standard despite somewhat greater support among certain subgroups of the population.

The project was designed to have a nationwide focus. Therefore, we limited our interviews to national organizations and relied on them to provide insights on state-level issues. We recognize that AID policies are implemented on a state-by-state basis and future research should examine perceptions of BAC standards among state-level stakeholders. Of particular interest would be stakeholders in Utah, where legislation was passed in 2017 to lower the legal BAC standard to 0.05% (with implementation to begin December 30, 2018). Utah is the first state in the United States to lower its legal standard below 0.08% and it could be instructive to examine the role that various stakeholders had in bringing about this change in AID policy.

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**Table 1**

## List of final stakeholder organizations

Name of organization	Type
Alliance of Automobile Manufacturers (Auto Alliance)	Automotive/trucking industry
American Association of Motor Vehicle Administrators (AAMVA)	Government
American Automobile Association (AAA)	Insurance
American Beverage Institute (ABI)	Alcohol industry
American College of Emergency Physicians (ACEP)	Medical/health
American Judges Association (AJA)	Judicial
American Medical Association (AMA)	Medical/health
American Trucking Association (ATA)	Automotive/trucking industry
Association for the Advancement of Automotive Medicine (AAAM)	Nongovernmental
Association of Prosecuting Attorneys (APA)	Judicial
Governors Highway Safety Association (GHSA)	Government
International Association of Chiefs of Police (IACP)	Law enforcement
Insurance Institute for Highway Safety (IIHS)	Insurance
Mothers Against Drunk Driving (MADD)	Nongovernmental
National Alcoholic Beverage Control Association (NABCA)	Alcohol industry
National Association of Criminal Defense Lawyers (NACDL)	Judicial
National Association of State Emergency Medical Services Officials (NASEMSO)	Medical/health
National Highway Traffic Safety Administration (NHTSA)	Government
National Institute for Alcohol Abuse and Alcoholism (NIAAA)	Medical/health
National Safety Council (NSC)	Nongovernmental